
INFORMATION TECHNOLOGY

This article introduces a new PHR Department that will appear occasionally. The Information Technology Department will chronicle these technological innovations as they are applied to the practice of public health.

NCHS Under Full Sail on the Information Highway

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AN EXTENSIVE ARRAY OF VITAL and health statistics from the National Center for Health Statistics (NCHS) profiling the health of the nation and its health care system is available through electronic dissemination.

NCHS has a home page on the Internet, many new data sets are available on CD-ROM, an enhanced version of the Statistical Export and Tabulation System (SETS) Designer Kit improves data access, and diskettes provide NCHS data ready for analysis in popular spreadsheet and text retrieval formats.

NCHS data systems cover the health field from birth to death, including overall health status, lifestyle and exposure to unhealthy influences, the onset and diagnosis of illness and disability, and the use of health care. NCHS is part of the Centers for Disease Control and Prevention, Public Health Service.

NCHS Home Page Provides Internet Access

NCHS has a Home Page on the World Wide Web. The Home Page offers Internet access to information about NCHS and its services, programs, and products. The NCHS Home Page contains .pdf (Adobe Acrobat) files of recent NCHS publications that may be viewed, searched, printed, and downloaded. The Home Page features lists of current publications and electronic products, news of upcoming conferences, news releases and fact sheets, links to reviews of publications and electronic media, full text of catalogs, lists of journal articles by NCHS staff members, and a query function.

To access the Home Page a connection to the Internet and a Web client or browser, such as Mosaic, Lynx, or Netscape is required. The Home Page may be accessed through the CDC Home Page at this

address: <http://www.cdc.gov> or directly at <http://www.cdc.gov/nchswww/nchshome.htm>.

SETS Designer Kit Updated

The Statistical Export and Tabulation Software (SETS) Designer Kit has been updated to offer additional analytical and data management capabilities. SETS is the NCHS-designed software for use in the management of large data files on CD-ROM or diskette. SETS is data independent and can be used with any large or complex data file but comes with the CD-ROMs produced by NCHS.

The SETS Designer Kit provides users with efficient tools to design, develop, analyze, and produce read-only data access system on CD-ROMs or diskettes.

The SETS interface provides the user with direct access to microdata, translation of field and value labels, complex boolean search engine for data and documentation, ad hoc tabulation using spreadsheet capability, data export to various analytical packages, time estimates for completion of tables and reports, context sensitive help at all levels, and a global search of all documentation from any point in the system.

The new version (SETS 1.21) can build sets from EPI INFO, SAS, and dBase files, extract components from existing sets to generate smaller, faster sets targeted for specific audiences or information requests and index floating point, fixed point, negative integer, and free-text data. SETS 1.21 is an update of the first release issued in 1992. SETS is a DOS product and operates in full screen mode with pop-up menus and includes 55 executable programs unified under a single designer interface.

The new version can be upgraded to SETS 1.22 which allows developers to script and modify macros to create repetitive tables and to exit to DOS without closing the SETS application.

The SETS Designer Kit can accommodate data with up to 15 million records per set, hierarchical or flat file structure, weighted or unweighted records of up to 32,000 characters, and up to 32,000 fields per record. The SETS Designer Kit requires an IBM-PC compatible microcomputer (286 or higher) with at least 640K memory, MS-DOS 3.31 or higher, and at least 20MB of free space on the hard drive.

The Designer Kit can be purchased from the Government Printing Office (Order No. 017-022-01162-0) or the National Technical Information Service (PB 92-503309) for \$52.

ICD, 9th Revision, CM Available on CD-ROM

The Government's official version of the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) is now available on CD-ROM. The ICD-9-CM provides instant access to the information contained in Volume I (Tabular List) and Volume II (Disease Index) as well as the Official Guidelines for Coding and Reporting.

The CD-ROM indexes the 14,000 diagnostic codes for classification of diseases on medical records, reporting forms, and clinical documents. Hospitals, physicians, and clinicians use the ICD-9-CM as mandated by Federal reporting requirements.

The ICD CD-ROM is available in DOS, WINDOWS, and Macintosh formats. System requirements are DOS 5.0 or higher, 4 megabytes of RAM and a 6-megabyte hard drive. The CD-ROM has on-screen instructions. Users can scroll the full text or search for a specific word or phrase. There are on-screen tutorial and help options. The ICD-9-CM CD-ROM is distributed by the Government Printing Office, Order No. 017-022-01268-5, for \$18.

New CD-ROM Releases

Many NCHS data files are now available on CD-ROM. Previously available only in large, public use data tapes, the CD-ROMs make NCHS data available at a much lower cost and for use on PCs in addition to mainframe computers. Multiple years of data are available for some files. The CD-ROMs come with the SETS software that offers data management, analysis, and search capabilities. The following NCHS CD-ROMs are available from the National Technical Information Service and the Government Printing Office. Price and order numbers are listed.

—National Health Interview Survey. Data from the nationwide household interview survey of the civilian, noninstitutionalized population. The survey measures the extent of illness and disability in the population, the use of health services, health behaviors, knowledge, and attitudes. CD-ROMs have been released for 1987 through 1992.

1987: GPO 017-022-01220-1, \$16; NTIS, PB 93-505931, \$30.

1988: GPO 017-022-01282-1, \$15; NTIS, PB 93-503259, \$30.

1989: GPO 017-022-01223-5, \$15; NTIS, PB 94-501244, \$30.

1990: GPO 017-022-01227-8, \$16; NTIS, PB 94-501228, \$30.

1991: GPO 017-022-01228-6, \$16; NTIS, PB 94-501236, \$30.

1992: GPO 017-022-01281-2, \$15; NTIS, PB 95-502506, \$30.

—National Hospital Discharge Survey profiles hospitalization patterns in the nation's non-Federal short-stay hospitals. Data on diagnoses, surgical and diagnostic procedures, and characteristics of the patient and the facility are included.

1990: GPO 017-022-01229-4, \$16; NTIS PB 94-501251, \$30.

—Longitudinal Study on Aging, 1984-90. This survey examined the health status, physical limitations, activities of daily living, occupation and retirement, nursing home stays, family structure and living arrangements, relationships and social contacts, and health conditions and impairments of older Americans.

Order No. GPO 017-022-01230-8, \$16; NTIS PB 94-500519, \$30.

—National Ambulatory Medical Care Survey, 1990, profiles medical care provided by office-based physicians. Data include symptoms presented, diagnoses, medications ordered or prescribed, diagnostic and screening services, therapeutic services, and ambulatory surgical procedures. Data on the characteristics of the patient, such as age, sex, and some health habits as well as physician characteristics, specialty, and type of practice were also obtained.

Order No. GPO 017-022-01259-6, \$15; NTIS PB 94-501962.

Data on Diskette

"Health, United States, 1993" the annual report on the health of the nation, is available on diskette.

Using commercial text retrieval and search software, NCHS provides this report of national trends in public health for PC users. In addition, key tables from the publication are also available on diskette in LOTUS format. The text file is on sale at GPO, Order No. 017-022-01264-2, \$27, or at NTIS, PB 94-504354, \$90. The spreadsheet file is also available from GPO, Order No. 017-022-01257-0, \$15 and NTIS, PB 94-504347, \$55.

Data from the National Hospital Discharge Survey for 1992 and earlier years are made available on diskette. It contains an advanced version of a software program for accessing hospitalization data in the United States and provides automated access to data on hospital utilization by different variables. Data are shown by age, sex of patients, and geographic regions in the United States for diagnoses, conditions, and surgical and nonsurgical procedures performed.

The system's special features include a complete dictionary of codes and descriptions from the ICD-9-CM and two reporting systems that show current and historical patterns of utilization. A file creation mode makes exporting to another software program possible. Computer requirements are 640K RAM, IBM compatible computer, 3.6 megabytes of space on hard drive and DOS 2.0 or higher. The latest file is for 1992 and is available from NTIS, PB 94-504529 (5¼ inch) and PB 94-504537 (3½ inch), for \$90.

Also on diskette are files that allow for matching the National Death Index (NDI) with the National Health Interview Survey (NHIS). Beginning with survey year 1986, the linkage information was collected from NHIS respondents ages 18 and older to permit matching to other data systems such as the NDI. Linkage of NHIS respondents with the NDI provides a longitudinal component to the NHIS that allows for ascertainment of vital status. The addition of vital status enables the NHIS data to be used for survival analyses, mortality rates, and life expectancy with the full NHIS questionnaire information for analysis.

Five diskettes are available for NHIS survey years 1986-90. They are used in conjunction with the NHIS data tape for that year. The diskettes are available from the National Technical Information Service. Each is \$90. Order Nos. are 1986-91, PB 94-502119; 1987-91, PB 94-502127; 1988-91, PB 94-502135; 1989-91, PB 94-502143; 1990-91, PB 94-502150.

Just recently released on diskette is an international mortality data base combining U.S. data from NCHS with data on 40 industrialized nations from the World Health Organization. The data base supports com-

parative analysis of mortality patterns by cause of death, age, and sex, from 1955 to 1991. Data are provided in Lotus spreadsheets which contain age-specific and age-standardized death rates as well as life expectancy. All spreadsheets are provided separately for both sexes combined and separately for males and females. The data base also contains deaths and estimated populations so that the user can create specialized rates tailored to specific projects or analyses. Ordering information is available from NCHS.

Public Use Data Tapes

Public use data tapes are available from virtually all of the NCHS data systems. These microdata files provide access to extensive data resources from the Center's vital and health statistics programs. Each public use tape has a fixed content fixed format and comes with a complete documentation package. The tapes are available at 1,600 or 6,250 bytes per inch or 38,000 bpi for cartridge tapes. Some of the latest releases:

Three public use data tapes for the 1991 Longitudinal Followup to the 1988 National Maternal and Infant Health Survey are now available for each of the components of the survey—the live birth survey, the child medical provider survey, and the fetal and infant death survey.

The 1988 survey followed back to respondents on birth, fetal death, and infant death records to study factors related to poor pregnancy outcomes and maternal and infant health status.

The 1991 followup survey provides longitudinal data and can be merged with the 1988 survey to examine the longer term impact of various factors such as low birth weight, lack of prenatal care, and maternal and pregnancy characteristics. Its primary purpose is to obtain data on national health issues affecting children, such as child development, child injury, child care, pediatric care, health insurance coverage, child safety, and acute and chronic child illnesses.

Information from the 1991 survey was obtained from interviews with a sample of more than 11,000 respondents from the 1988 initial survey. Additional data were secured from more than 9,000 pediatric care providers and more than 3,500 hospitals which provided care for the sampled children since birth.

The 1991 survey tapes can be ordered from NTIS, PB-94-501053, \$480.

Many systems offer multiple years of data for trend analysis. NCHS has just released the 1992 annual files from the vital statistics system and the latest

series from its health surveys. For vital statistics the following files are now available from NTIS:

Vital Statistics, Natality Data, Detail, 1992, PB-95-501730, \$360.

Vital Statistics, Fetal Death Data, 1992, PB-95-502654, \$240.

Vital Statistics, Mortality Data, Detail, 1992, PB-95-502332, \$590.

Vital Statistics, Mortality Data, Multiple Cause of Death, Detail, 1992 PB-95-502209, \$1,200.

Also available is the latest edition of the Linked Birth Infant Death Data Set, 1988, PB-95-500039, \$240.

The National Health Interview Survey file for 1993 has been released; NTIS PB-95-502241, \$590. In addition to the annual file that covers the basic questionnaire, current health topics are added each year. The special topics for 1993 are available directly from NCHS and the price is \$200 each for these separate topics: Teenage Attitudes and Practices Survey II, Access to Care, AIDS Knowledge and Attitudes, Health Insurance, Immunization, and Year 2000 Objectives.

Technical Assistance, Ordering Information

NCHS's Data Dissemination Branch provides information services for all NCHS programs and products. That office provides technical assistance in the acquisition and use of NCHS's printed or electronic releases. A catalog of public use data tapes, CD-ROMs, and diskettes is issued and updated periodically (1).

A copy of the current catalog, notices of upcoming electronic releases, and other information can be obtained from Data Dissemination Branch, NCHS, 6526 Belcrest Road, Room 1064, Hyattsville, MD 20782; tel. 301-436-8500, or through the NCHS Home Page on the Internet. To order products from the Government Printing Office, contact the order and information desk at 202-512-1800; to reach the National Technical Information Service call 703-487-4650.

Reference

1. Catalog of electronic data products. DHHS Publication No. (PHS) 94-1213. National Center for Health Statistics, Hyattsville, MD, July 1994.